

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A mobile communication terminal comprising:

a first body;

a second body; and

a hinge apparatus, which rotatively couples the first body to the second body, the hinge apparatus comprising:

a first hinge unit comprising:

first hinge housing formed approximate to a side edge of the first body; and

a first hinge member inserted into the first hinge housing;

a second hinge unit;

a second hinge housing formed approximate to a bottom edge of the second body;

a second hinge member inserted into the second hinge housing; and

a spring disposed adjacent to the second hinge member in the second hinge housing;

a coupling hinge member disposed between the first and second hinge units; and

a rotation control device for applying pressure to the first hinge member, such that application of pressure to the first hinge member is directly transferred to the coupling hinge member and the second hinge member respectively, to slidably move the first, second and coupling hinge member inside the first and second hinge housings,

such that the rotation control device in a first rotation state in cooperation with a biasing force of the spring positions the coupling hinge member inside the first hinge housing, and

such that the rotation control device in a second rotation state in cooperation with the biasing force of the spring positions the coupling hinge member inside the second hinge housing;

wherein the second hinge unit comprises:

- ~~a second hinge housing formed approximate to a bottom edge of the second body;~~
- ~~—— a second hinge member inserted into the second hinge housing; and~~
- ~~—— a spring disposed adjacent to the second hinge member in the second hinge housing; and~~

a shaft disposed in the second hinge housing, wherein the shaft passes through the spring, second hinge member and coupling hinge member.

—— wherein rotation-preventing surfaces are formed on a outer circumferential surfaces of each of the first, second and coupling hinge members, such that the rotation-preventing surfaces prevent the first, second and coupling hinge members from rotating inside the first and second hinge housings when said rotation-preventing surfaces engage an inner circumferential surface of said first and second hinge housings, and

—— wherein the rotation-preventing surfaces are formed on the outer circumferential surfaces of each of the first, second and coupling hinge members, such that the first, second and coupling hinge members can slidably move in and out of said first and second hinge housings without any obstruction and subject to the biasing force exerted by the spring and the rotation control device.

2. (Cancelled)
3. (Cancelled)
4. (Cancelled)

5. (Currently amended) The mobile communication terminal of claim 2 1, wherein guiding surfaces are formed on opposing surfaces of the first hinge member and coupling hinge member.

6. (Original) The mobile communication terminal of claim 5, wherein a groove, which is formed on the guiding surface of the first hinge member, engages a corresponding protrusion formed on the guiding surface of the coupling hinge member.

7. (Original) The mobile communication terminal of claim 5, wherein a groove, which is formed on the guiding surface of the coupling hinge member, engages a corresponding protrusion formed on the guiding surface of the first hinge member.

8. (Previously presented) The mobile communication terminal of claim 1, wherein a convex portion and a concave portion are each formed on opposing surfaces of the coupling hinge member and the second hinge member such that the convex and concave portions of the coupling hinge member correspond to the concave and convex portions, respectively, of the second hinge member.

9. (Cancelled)

10. (Previously presented) The mobile communication terminal of claim 1, wherein first and second hinge contact surfaces are formed on an inner surface of each of the first and second hinge housing members, respectively, to engage the rotation-preventing surfaces of the first and second hinge members, respectively, to prevent rotation of the first and second hinge members, respectively.

11. (Currently amended) The mobile communication terminal of claim 2 1, wherein the rotation control device comprises:

- a cap receiving portion formed on an inner surface of the first hinge housing;
- a rotation control cap;

a cap receiving groove formed on the cap receiving portion;
a cap protrusion formed on an outer circumferential surface of the rotation control cap,
wherein the cap receiving groove receives the cap protrusion;
a female screw thread formed on an inner circumferential surface of the rotation control cap; and
a male screw thread formed on a circumferential surface of the first hinge member,
wherein the male screw thread engages the female screw thread of the rotation control cap.

12. (Original) The mobile communication terminal of claim 11, wherein the rotation control cap comprises an exposed portion to serve as a receiving point for torque applied by a user.

13. (Original) The mobile communication terminal of claim 12, wherein the exposed portion comprises gripping means.

14. (Original) The mobile communication terminal of claim 13, wherein the gripping means comprises a plurality of knurls.

15. (Original) The mobile communication terminal of claim 11, further comprising a protrusion formed on each of the inner surfaces of the first hinge housing and rotation control cap such that the protrusion formed on the inner surface of the first hinge housing prevents lateral movement of the rotation control cap towards the second hinge housing.

16. (Original) The mobile communication terminal of claim 1, wherein a plurality of terminal manipulation devices are disposed on an inner surface of the first body.

17. (Original) The mobile communication terminal of claim 1, wherein a display screen is disposed on an inner surface of the second body.

18. (Currently amended) A folding type mobile communication terminal, wherein a hinge apparatus rotatively couples a first body to a second body, the hinge apparatus comprising:

- a first hinge housing formed approximate to a side edge of the first body;
- a first hinge member inserted into the first hinge housing;
- a second hinge housing formed approximate to a bottom edge of the second body;
- a second hinge member inserted into the second hinge housing;
- a coupling hinge member disposed between the first and second hinge members;
- a spring disposed adjacent to the second hinge member in the second hinge housing;
- a shaft disposed in the second hinge housing, wherein the shaft passes through the spring, second hinge member and coupling hinge member;

a rotation control device for controlling pressure applied to the first hinge member, such that application of pressure to the first hinge member is directly transferred to the coupling hinge member and the second hinge member respectively, to move the first, second and coupling hinge member inside the first and second hinge housings.

such that the rotation control device in a first rotation state in cooperation with a biasing force of the spring positions the coupling hinge member inside the first hinge housing, and

such that the rotation control device in a second rotation state in cooperation with the biasing force of the spring positions the coupling hinge member inside the second hinge housing;

rotation-preventing surfaces formed on a circumferential surface of each of the first, second and coupling hinge members; and

first and second hinge contact surfaces formed on an inner surface of each of the first and second hinge housing members, respectively, wherein the first and second hinge contact surfaces engage the rotation-preventing surfaces of the first and second hinge members, respectively, to prevent rotation of the first and second hinge members, respectively

wherein the rotation-preventing surfaces are formed on an outer circumferential surface of each of the first, second and coupling hinge members, such that the rotation-preventing surfaces prevent the first, second and coupling hinge members from rotating inside the first and

second hinge housings when said rotation-preventing surfaces engage an inner circumferential surface of said first and second hinge housings, and

wherein the rotation-preventing surfaces are formed on the circumferential surface of each of the first, second and coupling hinge members, such that the first, second and coupling hinge members can slidably move in and out of said first and second hinge housings without any obstruction and subject to a biasing force exerted by the spring and the rotation control device.-

19. (Original) The folding type mobile communication terminal of claim 18, wherein the hinge apparatus further comprises:

guiding surfaces formed on opposing surfaces of the first hinge member and coupling hinge member, wherein a groove is formed on the guiding surface of the first hinge member and engages a corresponding protrusion formed on the guiding surface of the coupling hinge member.

20. (Original) The folding type mobile communication terminal of claim 18, wherein a convex portion and a concave portion are each formed on opposing surfaces of the coupling hinge member and the second hinge member such that the convex and concave portions of the coupling hinge member correspond to the concave and convex portions, respectively, of the second hinge member.

21. (Cancelled)

22. (Original) The folding type mobile communication terminal of claim 18, wherein the rotation control device comprises:

a cap receiving portion formed on an inner surface of the first hinge housing;

a rotation control cap having an exposed portion to serve as a receiving point for torque applied by a user;

a cap receiving groove formed on the cap receiving portion;

a cap protrusion formed on an outer circumferential surface of the rotation control cap, wherein the cap receiving groove receives the cap protrusion;

a female screw thread formed on an inner circumferential surface of the rotation control cap; and

a male screw thread formed on a circumferential surface of the first hinge member, wherein the male screw thread engages the female screw thread of the rotation control cap.

23. (Previously presented) A method of unfolding a folding type mobile communication terminal to a maximum opening angle, the method comprising:

rotating a rotation control device in a predetermined direction so that a first hinge member is forced towards an outer edge of the terminal, wherein a coupling hinge member is displaced into a first hinge housing;

lifting a first body of the terminal, which is rotatively coupled to a second body, so that a convex portion of the coupling hinge member passes over a convex portion of a second hinge member; and

releasing the first body of the terminal so that a spring housed in a second hinge housing expands and forces the convex portion of the coupling hinge member to completely pass over the convex portion of the second hinge member, thereby completely unfolding the terminal.

24. (Previously presented) A method of unfolding a folding type mobile communication terminal to a desired opening angle, the method comprising:

rotating a rotation control device in a predetermined direction so that a first hinge member is forced away from an outer edge of the terminal, wherein a coupling hinge member is displaced into a second hinge housing;

lifting a first body of the terminal, which is rotatively coupled to a second body, so that a protrusion on the coupling hinge member engages a groove on the first hinge member; and

releasing the first body of the terminal at the desired opening angle, wherein an elastic force generated by a spring housed in a second hinge housing presses the coupling hinge member against the first hinge member, thereby creating a frictional force to maintain the desired opening angle.